

Appl. No. 10/698,706
Amtd. Dated 06/09/2005
Reply to Office Action of 03/09/2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended): A system for absorbing an impact, said system comprising:
a blow molded thermoplastic energy absorbing member comprising;
opposing first and second walls defining a hollow space;
a plurality of fused pairs of recessed ribs, each said fused pair comprising first and second recessed ribs;
said first recessed rib is integrally molded from said first wall and having a first recessed rib end;
said second recessed rib is integrally molded from said second wall and having a second recessed rib end;
said first and second recessed ribs being integrally fused at a welded surface disposed between said first and second recessed rib ends;
an average distance from said first wall to said welded surface is about approximately 15.0 to 45.0 mm;
an average distance from said second wall to said welded surface is about approximately 15.0 to 45.0 mm; and
said hollow space having an average height between said first wall and said second wall of about approximately 30.0 to 90.0 mm; and
said first recessed rib and second recessed rib are constructed to be crushed in the process of absorbing the impact energy.

Claims 2-8 (Canceled)

Claim 9 (Original): The system according to claim 1, further comprising a swelling part disposed in said first recessed rib end.

Claim 10 (Original): The system according to claim 9, wherein said swelling part is formed in a hollow shape.

Claim 11 (Original): The system according to claim 1, further comprising a stepwise part projecting from the welded surface.

Claim 12 (Original): The system according to claim 1, further comprising at least one unfused pair of recessed ribs having an interval disposed between said first and second recessed rib ends.

Claim 13 (Original): The system according to claim 12, wherein said fused pairs of recessed ribs comprise 50 to 80% of a total number of a sum of said fused and unfused pairs of recessed ribs.

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Claim 14 (Original): The system according to claim 12, wherein said first unfused recessed rib end has a surface chosen from the group of surfaces consisting of a concave surface and a convex surface and said second unfused recessed rib end has a surface of the group not chosen by said first recessed rib.

Claims 15 (withdrawn): A system for the absorption of an impact, said system comprising:
a blow molded thermoplastic energy absorbing member comprising;
opposing first and second walls defining a hollow space;
a plurality of recessed ribs integrally molded from said first wall and extending toward the second wall;
said recessed ribs comprising a fused recessed rib end;
said fused recessed rib ends being integrally fused to said second wall at a welded surface; and
wherein a height of said recessed ribs from the first wall to the welded surface is about approximately 15.0 to 45.0 mm.

Claims 16 (withdrawn): The system according to claim 15, further comprising an interlocking rib formed in said first wall, integrally linking at least two adjacent fused recessed ribs.

Claims 17 (withdrawn): The system according to claim 16, wherein the recessed ribs are disposed on a virtual straight line, said interlocking ribs being formed along at least one line 'c', said line 'c' being oriented at an angle of about approximately 30 to 60° from line 'd', said line 'd' being a line along a row of said fused pairs of recessed ribs.

Claims 18 (withdrawn): The system according to claim 15, further comprising a swelling part disposed in a welded surface.

Claims 19 (withdrawn): The system according to claim 15, further comprising at least one unfused recessed rib comprising an unfused recessed rib end; and an interval disposed between said unfused recessed rib end and said second wall.

Claims 20 (withdrawn): The system according to claim 19, wherein said fused recessed ribs comprise 50 to 80% of a total number comprising the sum of said fused and unfused recessed ribs.

Claim 21 (New): The system according to claim 1, wherein said first recessed rib and said second recessed rib define openings having a diameter in the range of 15.0 to 30.0 mm and said welded surface with a diameter in the range of 5.0 to 15.0 mm.

Claim 22 (New): The system according to claim 1, wherein said blow molded thermoplastic energy absorbing member is provided inside a vehicle structural member selected from the group consisting of door, door trim, body side panel, roof panel and pillar.